

## **Reconstruction of extension tendon and soft tissue defect on the right hand with palmaris longus and radial forearm free flap**

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**INTRODUCTION** Extensor tendons of the hand are prone to injuries due to their superficial location. Complex injuries with loss of tendon and or soft tissue cover require extensive reconstructive plastic surgery. In order to achieve good functional and aesthetic results, extensive soft tissue defects need to be reconstructed simultaneously with extensor tendon reconstruction.

**CASE REPORT** We present a case of 32 year old male who was admitted because of traumatic injury to his right hand. He suffered open dislocation and fracture of proximal and distal phalanges of the thumb and complicated fracture of 5th metacarpal bone with extensive extensor tendon injuries and substantial degloving of the hand dorsum. Debridement of the wound, reposition and fixation of the 1st and 5th fingers with Kirschner wires was done on the same day. After 2 days, extensor tendons of the 2nd 3rd and 4th fingers were reconstructed with palmaris longus grafts from both hands, and soft tissue defects were covered with radial forearm free flap taken from the opposite hand, which was anastomosed with radial artery and vein.

**CONCLUSION** Extensor tendon injuries of the hand require optimal reconstruction in order to preserve their function. Even a small difference in tendon length could mean a serious limitation of the range of movement. Soft tissue reconstruction is of equal importance and a paramount for achieving a good result after tendon reconstruction. Our patient was discharged home after 1 month and 6 months after he recovered completely with full range of movement in his right hand.